

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)



SAN ANTONIO DE LOS BUENOS WASTEWATER TREATMENT PLANT IN TIJUANA, BC. REHABILITATION AND EXPANSION OF THE PLANT IS BEING FUNDED THROUGH A GRANT AND LOAN FROM THE NADB.



U.S. ENVIRONMENTAL PROTECTION AGENCY

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The U.S. Environmental Protection Agency (EPA) actively promotes the sustainable development of border infrastructure in California-Baja California. Specifically, EPA supports *water and wastewater projects* through the Border Environmental Cooperation Committee's (BECC) *Project Development Assistance Program* (PDAP) and the North American Development Bank's (NADB) *Border Environment Infrastructure Fund* (BEIF).

From fiscal year 1996 to fiscal year 2003, the U.S. Congress appropriated to EPA \$575 million for border water and wastewater infrastructure. EPA distributed these funds among the NADB's BEIF, BECC's PDAP, EPA's Border Tribal Program and Congressionally-mandated Special Projects.

EPA utilizes BECC and NADB for disbursement of border infrastructure grants because the two organizations provide a forum for developing environmentally sensitive, financially feasible infrastructure projects. A shared long-term objective of EPA, NADB, and BECC is the development of self-sustaining water and wastewater systems.

PROJECT DEVELOPMENT ASSISTANCE PROGRAM (PDAP)

EPA has awarded BECC \$36million in grants to encourage the sound development of water and wastewater projects on both sides of the US-Mexico border through the PDAP. To access PDAP grant funds, the project sponsor must demonstrate a need for technical assistance and be eligible for BEIF assistance. EPA is involved in the disbursement of these funds only when the contract amount exceeds \$500,000. BECC must submit quarterly and annual financial reports for review.

BORDER ENVIRONMENT INFRASTRUCTURE FUND (BEIF)

Under a cooperative agreement with NADB, EPA has made \$439 million in grants available to the BEIF. NADB administers these funds to support EPA-approved water and wastewater projects. These grants are intended to supplement funding from other sources in order to complete a project's financial package. BEIF funds are available only after all other financing options have been expended. EPA has developed the following project selection criteria for BEIF funds:

- (1) A project must address a priority human health or ecological issues. Projects with the most impact will receive priority.
- (2) A project must have U.S.-side benefits. Projects with benefits on both sides will receive priority.
- (3) A project must be BECC-certified.
- (4) Projects must have maximum funding from other sources and need BEIF funds only to complete their financing.
- (5) Adequate planning, operations and management, and pretreatment provisions are prerequisites.

- (6) Only community/municipal infrastructure is eligible.
- (7) For drinking water, only drinking water quality projects are eligible (i.e. treatment plants and distribution systems). Raw water supply projects are excluded.
- (8) If there is a direct or indirect discharge to U.S. waters, a project must target U.S. water quality norms. Projects can be phased to achieve these targets. Flow reductions must not threaten U.S. or shared ecosystems.
- (9) To be eligible for funding to serve colonias, county or municipal governments must have enforceable local ordinances or zoning rules that prevent:
 - the development or construction of any additional colonia areas, and
 - the construction, within an existing colonia, of any new home, business or other structure that lacks water, wastewater, or other necessary infrastructure.

NADB has developed an affordability protocol based on EPA's affordability guidelines for BEIF assistance. The protocol, which is included in this section, identifies eligibility criteria for transition and construction assistance. BEIF assistance is possible only if a project's financial burden exceeds the users' ability to pay.

Using the project selection criteria and affordability guidelines, NADB will formulate a proposal with the appropriate mix of assistance. NADB will submit the proposal with an affordability analysis and a sensitivity analysis to EPA. EPA retains final approval as to which projects will be funded. EPA provides NADB with a written response for each proposal. Upon receipt of EPA's final decision, the Bank provides written notice of such decision to the project sponsor and copies to EPA, the respective state and the community.

EPA is developing a ranking system to prioritize BEIF-eligible projects for funding. The proposed system will consider the seriousness of the environmental and human health impact being addressed by the project.

Because the disbursement of EPA funding is considered a federal activity, National Environmental Protection Act (NEPA) process must be completed prior to the disbursement of PDAP or BEIF funds for final design and construction. EPA has been involved in the development of NEPA documents, which disclose impacts in the U.S. from Mexican projects. Environmental assessments developed for BECC certification include trans-boundary impacts. EPA is responsible for ensuring the analyses of these impacts comply with its NEPA requirements.

NADB is responsible for oversight of construction and operation of the water and wastewater facilities funded with BEIF funds.

BORDER TRIBAL PROGRAM

Since 1996, EPA has reserved \$28.4 million to build drinking water and wastewater treatment infrastructure on Indian Nations and other tribal lands in the U.S. This program provides direct grants to the Indian Health Service or appropriate tribal organization. EPA Region IX (San Francisco office) manages this program.

The following are the funding criteria that apply to the Border Tribal Program.

- (1) Funds may be used for planning, design and construction of drinking water and wastewater infrastructure improvements. Drinking water projects must address water quality issues, not supply (quantity) issues.
- (2) A project must address an existing public health or water quality problem. Emphasis will be given to residential domestic problems.
- (3) Adequate provision for long-term operation and maintenance of systems is a prerequisite.
- (4) A project must be substantially completed within 3 years.
- (5) A project with trans-boundary (U.S. and Mexico) impacts must be BECC certified.
- (6) The funding requested must be sufficient to adequately finance the project.
- (7) The Tribal Chairman must submit the project descriptions.
- (8) A project must be located within 100 kilometers (approximately 62 miles) of the U.S.-Mexico border. (As mentioned above this program is for projects on Indian reservations and tribal lands in the U.S.)

OTHER EPA BORDER ACTIVITIES

EPA participates in Border 2012, a binational program that coordinates activities of the U.S. and Mexican federal entities responsible for the border environment. Border 2012 (2002-2012), with a ten-year outlook, is subsequent to the five-year Border XXI program (1995-2000) I, with changes in organizational structure that reflect an increasing role for regional and local participants. Border 2012 organization includes border-wide Policy Forums, Regional Work Groups and local Task Forces. To convene as a task force, a group must be working to meet a Border 2012 goal and/or objective, fulfill certain organizational criteria, and apply for approval to the appropriate Regional Work Group. Two Water task forces have been approved for California/Baja California: Lower Colorado River Basin (including Arizona/Sonora/Baja California/California) and Tijuana/San Diego. For additional information regarding the Border 2012 program visit www.epa.gov/usmexicoborder.

PROTOCOL FOR APPLICATION OF EPA AFFORDABILITY GUIDELINES
TO U.S. WATER AND WASTEWATER PROJECTS UNDER THE

BORDER ENVIRONMENT INFRASTRUCTURE FUND (BEIF)



This protocol is updated periodically based on experience in applying it to diverse projects.
Any changes must be approved by EPA.

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INTRODUCTION

PROTOCOL

This protocol was developed by the North American Development Bank (Bank) to explain the analysis used to apply United States Environmental Protection Agency (EPA) affordability guidelines to water and wastewater projects on the U.S.-Mexico border seeking grant assistance from the Border Environment Infrastructure Fund (BEIF). This protocol is directed to projects in the United States. EPA's affordability guidelines were issued by memorandum dated March 28, 1997, under the signature of Robert Perciasepe, Assistant Administrator, and are included in this document.

THE BEIF AND ITS PURPOSE

THE BORDER ENVIRONMENT INFRASTRUCTURE FUND

The Bank has established a Border Environment Infrastructure Fund to administer nonreimbursable resources for environmental infrastructure projects in the U.S.-Mexico border region. Pursuant to a Cooperative Agreement (Agreement) with EPA, EPA will make funds available to the BEIF and will allow those funds to be used to support EPA-approved projects in accordance with the terms and conditions specified in the Agreement. The Infrastructure Fund may be used for projects on both sides of the United States-Mexico border located within 100 km of the international boundary. To the extent that projects are financially assisted by any Mexican institution on the Mexican side of the border, or by state-sponsored programs on the U.S. side of the border, consultation with and support from the concerned agency or organization will be a critical factor in obtaining EPA agreement to proceed with grant support of a specific project. In all cases the EPA will make the final decision to provide grant assistance.

PURPOSES OF THE BEIF

The goals of the BEIF are to:

1. Facilitate the expansion and improvement of water and wastewater environmental infrastructure in the United States-Mexico border region by providing coordinated financial support for the construction of projects and related activities.
2. Improve cooperation and coordination and assure the efficient flow of funds and the fiduciary soundness of financial management practices among all private and public sector parties with respect to financial support provided by those parties for constructing environmental infrastructure in the U.S.-Mexico border region, particularly with respect to financial cooperation among the Bank, EPA and CNA.
3. When appropriate, the BEIF will work in tandem with the Bank's Cooperative Credit Program, which, in conjunction with existing state and local programs, provides loan and loan guaranty support to small border communities that need environmental infrastructure improvements.

AUTHORIZED USE OF BEIF FUNDS

In order to make such projects affordable to the relevant community, EPA funds may be used in conjunction with grants and loans from other sources for the final design and construction of water and wastewater projects. A project may receive both transition and construction grant assistance from the BEIF.

1. Transition assistance may be used to ease a community's adjustment to higher user fees over time by providing capitalized interest funds over a 5 to 7-year period; or to foster regionalization by providing funds to support the debt service costs of regional plants as service levels reach targeted demand in neighboring communities.
2. Construction assistance may be used to pay final design and construction costs which are not funded by other sources,

BASIC REQUIREMENTS FOR U.S. PROJECTS

To be eligible for consideration for BEIF grant assistance, projects must meet EPA project selection criteria (see Appendix A), including associated affordability guidelines (see Appendix B). These guidelines include an eligibility benchmark that is explained below.

AFFORDABILITY AND THE ELIGIBILITY BENCHMARK

Affordability is a measure of a community's ability to pay the cost of water and wastewater infrastructure. Although other factors may be taken into consideration, the fundamental determinant of affordability is the ratio of cost per household to median household income (CPH/MHI). These terms and the method used to calculate them are explained below. The EPA uses a CPH/MHI benchmark of 1.7% to determine eligibility for construction grant funds under the BEIF. This is referred to as the Eligibility Benchmark. The EPA and the Bank expect communities to pay all project costs up to the point that CPH/MHI equals 1.7%. Projects with costs in excess of those that produce a CPH/MHI of 1.7% are ELIGIBLE for consideration of construction grant assistance from the BEIF. If a project requires rate increases related to debt service of 5% or more per year, the project is ELIGIBLE for transition grant assistance from the BEIF. A CPH/MHI in excess of 1.7% or rate increases related to debt service of 5% or more per year neither guarantee a commitment by EPA to provide any grant funds, nor signify a specific level of grant funding.

All funding decisions will be made on a project-by-project basis.

BECC FINANCIAL FEASIBILITY CRITERION

To receive BEIF grant assistance, a project must be certified by the Border Environment Cooperation Commission (BECC). An essential criterion that must be met for BECC certification is financial feasibility and project management. Financial Feasibility is a determination of whether or not revenues are sufficient to cover debt service and operations and maintenance (O&M) costs.

Financial Feasibility is different than Affordability. Affordability is a determination of whether debt service and O&M costs of a project when added to existing debt service and O&M result in a cost per household greater than 1.7% of median household income. This determination is made by the Bank and is required to be eligible for grant assistance from the BEIF.

METHOD OF ANALYSIS

The Bank will use the following method to determine project affordability and make recommendations of BEIF grant assistance:

CALCULATIONS TO DETERMINE PROJECT AFFORDABILITY

The project sponsor must provide a seven-year financial statement projection for its existing water and/or wastewater system. This must include a revenue and expense statement (income statement or profit and loss statement is also acceptable). This projection must show all revenue sources and all expenses including all operations and maintenance expenses as well as debt service (principal and interest). Balance sheet and cash flow statements are also requested.

The project sponsor must also provide a seven-year financial statement projection for the proposed project. This projection must show revenue generated by the project and related expenses including all operations and maintenance expenses as well as project-related debt service (principal and interest). For projection purposes, debt contracted for the project must be amortized over the useful life of the project or twenty-five years, whichever is lesser. Debt may include capitalized interest for the project construction period.

The seven-year projections of the existing system and the proposed project may be presented in one combined projection provided that the revenue and expense components of each are clearly identified. If consultant services are needed to assist in preparation of these projections, the Project Sponsor may apply to the BECC's Project Development Assistance Program to receive consideration for grant assistance.

All projections must be made in constant values (i.e. no inflation).

Projections should be made based on the project sponsor's fiscal year and the starting and ending date of the fiscal year should be specified. The project sponsor is responsible for the projections.

RATE INCREASES

The projections must indicate rates charged and any rate increases that may be required in order for cash flow from the existing system and the proposed project to be sufficient to meet debt service, O&M expenses, debt service and O&M reserve requirements, equipment replacement requirements, and debt coverage ratio requirements.

Projects that provide first time service and do not have a rate history will be analyzed on a case-by-case basis in order to determine eligibility for BEIF transition grant assistance. The cost of the alternative means for delivery of water and wastewater service currently in use will be taken into consideration.

COST PER HOUSEHOLD ("CPH") CALCULATION

Cost per household is calculated by dividing the sum of O&M and debt service costs attributable to household users by the number of households in the service area. O&M is calculated by adding the projected O&M of the existing system to the projected O&M of the proposed project. Debt service is calculated by adding the projected debt service of the existing system to the projected debt service of the proposed project. The amount of O&M and debt service attributable to household users is determined by multiplying the total amount of O&M and debt service by the percentage of the volume of water consumed by household users of the total volume of water billed to all users (household, commercial, industrial and governmental).

The O&M and debt service costs for both water and wastewater should be used in the CPH calculation.

The number of households is determined from the most recently available U.S. Census. In most cases, the most recently available U.S. Census data is from the 1990 Census that shows the number of

households in 1989. The Bank will inflate this number by the historical five-year compound annual growth rate (CAGR) of the population of the service area. The U.S. Census Bureau definition of households ‘...includes the related family members and all unrelated persons,... A person living alone in a housing unit, or a group of unrelated persons sharing a housing unit as partners...’. The count of households excludes group quarters. This definition may vary from that used by many state agencies. For the purpose of calculating CPH, depreciation is not included as a cost.

MEDIAN HOUSEHOLD INCOME (“MHI”) CALCULATION

Median Household Income is calculated by taking the MHI from the most recently available U.S. Census and inflating it with the Consumer Price Index (“CPI”) available from the U.S. Bureau of Labor Statistics. The CPI most representative of the service area should be used. If available, the local CPI should be used. If a local CPI is not available, then the CPI of the next largest area or region shall be used.

PROJECT SCOPE

Grant assistance may be provided for stand-alone projects or projects that are part of a master plan or larger capital improvement program; however, the Bank strongly encourages projects to be part of a long-term master plan. In either case, the affordability analysis takes the financial projections of the existing system and adds the debt service and O&M costs of the proposed project. If grant assistance is requested for a project that is part of a larger capital improvement program, the project cost must be isolated from the cost of other components of the capital improvement program.

SERVICE AREA

Grant assistance is intended to benefit rate payers in the area that the project is designed to service. Provided that the project is within 100 kilometers of the U.S.-Mexico border, the physical location of a water or wastewater plant in the border city or community is not taken into consideration in the analysis.

UNAVAILABLE DATA

The Bank recognizes that data is unavailable or inadequate for some border communities. On a case-by-case basis, the Bank will determine alternative, objective sources of data that may be accepted to perform the affordability calculations.

RESULTS OF CALCULATIONS

If the calculations result in a cost per household greater than 1.7% of median household income, the project is ELIGIBLE for construction grant assistance from the BEIF. If a project requires rate increases related to debt service of 5% or more per year, the project is ELIGIBLE for transition grant assistance from the BEIF.

The purpose of grant assistance from the BEIF is to make high-priority water and wastewater projects affordable. The CPH/MHI measure of 1.7% is only used to determine eligibility and a project is deemed eligible if the CPH/MHI is in excess of 1.7% in any year of the 7-year projection. Project sponsors are expected to pay at least the debt service and O&M cost that result in a CPH/MHI of 1.7%. It is not intended for BEIF grant assistance to bring a project sponsor's CPH/MHI down to 1.7%.

GLOSSARY OF TERMS

Affordability

A measure of a community's ability to pay the cost of water and wastewater infrastructure.

Consumer Price Index (CPI)

An index of prices used to measure the change in the price of basic goods and services in comparison to a fixed base period. The CPI is prepared by the U.S. Bureau of Labor Statistics.

Cost per Household

The average of operations and maintenance and debt service costs attributable to a single household in a service area.

Debt Service

On-going principal and interest payments.

Financial Statements

Audited income statement, balance sheet and cash flow statement.

Household

The person or people occupying a housing unit.

Median Income*

The amount which divides the income distribution into two equal groups, half having incomes above the median, half having incomes below the median. The medians for households, families, and unrelated individuals are based on all households, families, and unrelated individuals. The medians for persons are based on persons 15 years old and over with income.

Operations and Maintenance Expenses (O&M)

On-going expenses required for the efficient operation of a water or wastewater utility.

Regionalization

The provision of water and wastewater services to a service area beyond a single community.

Service Area

The area that includes rate payers whose rates will be affected by the project seeking BEIF grant assistance.

*U.S. CENSUS BUREAU

DETERMINATION OF GRANT ASSISTANCE

The Bank will determine basic eligibility for grant assistance utilizing the affordability analysis stated in this protocol and EPA's project selection criteria shown in Appendix A. Based on this initial determination of eligibility, the Bank shall be responsible for formulating proposals with respect to the appropriate mix of funds for transition and construction assistance, and shall present such proposals to EPA for its approval with an affordability analysis and sensitivity analysis.

The amount of grant assistance will vary on a project-by-project basis considering secondary factors such as the current debt burden of the project sponsor, the other sources of funding available, available grant resources, the ability of the project sponsor to assume debt to finance the project, and key socioeconomic indicators such as high unemployment in the service area. Consideration will be given to the rate structure resulting from the project compared to average regional rates.

Projects that can benefit from regionalization of facilities or services should not be adversely affected in terms of the priority, amount, or type of grant funding as a result of selecting a regional alternative.

EPA will provide the Bank with written response to each financing proposal. Projects that are approved for financing from the BEIF will include a specific financial commitment to that project. The decision will be based on the "deal sheet" setting forth the Bank's complete analysis of the project and addressing both EPA's project selection criteria and the Bank's Loan and Guaranty Policies and Operational Procedures. In all cases, the EPA makes the final decision to provide the Bank's BEIF grant assistance.

Upon receipt of EPA's final decision, the Bank will provide the Project Sponsor with written notice of such decision. Copies of that notice shall be provided to EPA, the associated state and community (if other than the Project Sponsor).

CHECKLIST OF INFORMATION REQUIRED FOR AFFORDABILITY ANALYSIS

1. Seven-year cash flow projection of existing water and wastewater system that takes into consideration O&M expenses and debt service for existing system.
2. Seven-year cash flow projection of proposed project that takes into consideration O&M expenses and debt service for the proposed project.
3. Number of households in service area. Use U.S. Census Bureau definition of "Household".
4. Consumer Price Index for the service area for 1990-1996.
5. Water and wastewater volume by user type (commercial, industrial, residential, governmental)
6. Capital improvement program with all project descriptions and estimated costs. If any projects are in process, include amount spent to date and approximate percentage of completion.
7. Any additional documentation that would create an accurate and complete picture of the project sponsor's financial capability.

AFFORDABILITY ANALYSIS FOR ANY BORDER CITY, ANY BORDER STATE

		1	2	3	4	5	6	7
	Census 1990	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001	Fiscal Year 2002	Fiscal Year 2003	Fiscal Year 2004
O&M Existing Water System ¹		20,000,000	20,500,000	21,000,000	21,500,000	22,000,000	22,500,000	23,000,000
O&M Existing Wastewater System ¹		28,600,000	29,000,000	29,600,000	30,200,000	30,700,000	31,500,000	32,100,000
O&M New Project ³		10,000,000	10,250,000	10,500,000	10,750,000	11,000,000	11,250,000	11,500,000
Debt Service Existing Water System ¹		7,000,000	7,200,000	7,400,000	7,600,000	7,800,000	8,000,000	8,200,000
Debt Service Existing Wastewater System ¹		10,000,000	10,300,000	10,600,000	10,900,000	11,200,000	11,500,000	11,800,000
Additional Debt Service New Project ³		4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Cash Expenses for Current Operations		79,600,000	81,250,000	83,100,000	84,950,000	86,700,000	88,750,000	90,600,000
Household Water Usage (gd) ¹		50,000,000	51,000,000	52,500,000	54,000,000	55,500,000	57,000,000	59,000,000
Commercial Water Usage (gd) ¹		8,000,000	8,150,000	8,300,000	8,450,000	8,600,000	8,750,000	8,900,000
Industrial Water Usage (gd) ¹		5,000,000	5,050,505	5,105,105	5,205,206	5,305,305	5,405,405	5,505,505
Governmental Water Usage (gd) ¹		20,000,000	20,200,000	20,500,000	20,700,000	21,000,000	21,350,000	21,500,000
Percentage of Cash Expenses Attributable to Households		60.24%	60.43%	60.76%	61.12%	61.39%	61.62%	61.17%
Number of Households ⁴	90,000	102,905	104,449	106,015	107,606	109,2205	110,8585	112,521
Annual Cost Per Household (CPH)		\$ 465.98	\$ 470.05	\$ 476.27	\$ 482.49	\$ 487.32	\$ 493.30	\$ 500.56
Any Border City Median Household Income (MH) ⁵	\$ 20,000	\$ 25,600	\$ 26,022	\$ 26,451	\$ 26,887	\$ 27,330	\$ 27,781	\$ 28,239
CPH as a Percentage of Any Border City MHI		1.82%	1.81%	1.80%	1.79%	1.78%	1.78%	1.77%
Benchmark		1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%

¹ Any Border City Waterworks 7-Year Financial Plan² Book, Engs & Billings Consulting Engineers, Inc. Project Forecast for Any Border City³ Raitts & Markups Financial Advisors⁴ 1990 U.S. Census Data. Population inflated by CAGR of 1.5% per year 1989-1998.⁵ 1990 U.S. Census Data. MHI inflated by local CPI of 28% from 1989 through 1998 and then inflated by estimated CPI of 1.65% per year for 1999-2004.

EPA PROJECT SELECTION CRITERIA

- (1) Projects must address priority human health and/or ecological issues. Priority will be given to those projects likely to have the most impact.
- (2) Projects must have U.S.-side benefits. Priority will be given to those projects with benefits on both sides of the border.
- (3) BECC-certified projects only will be selected.
- (4) Priority will be given to projects with maximum funding from other sources and where program funding is necessary to complete financing of the project.
- (5) Adequate planning, operations and maintenance and pretreatment provisions are prerequisites.
- (6) Community/municipal infrastructure only will be selected.
- (7) For drinking water projects, drinking water quality projects only are eligible, not raw water supply. Therefore, only drinking water treatment plants and treated water distribution systems will be covered.
- (8) Projects where the discharge is directly or indirectly to U.S.-side waters, must target achievement of U.S. norms for ambient water quality in U.S.—side waters, although infrastructure development may be phased over time. Any flow reductions that result from implementation of non-discharging alternatives must not threaten U.S. or shared ecosystems.
- (9) To be eligible for funding to serve colonias, county or municipal governments must have enforceable local ordinances or zoning rules that prevent:
 - the development or construction of any additional colonia areas, and
 - the construction, within an existing colonia, of any new homes, business or other structure that lack water, wastewater, or other necessary infrastructure.

EPA'S AFFORDABILITY GUIDELINES

MEMORANDUM

SUBJECT: Border Infrastructure Grants Program Project Affordability Guidelines

FROM: Robert Perciasepe, Assistant Administrator
TO: Regional Administrators Region IX and Region VI

My memorandum of September 12, 1996, established the eight Project Selection Criteria the Environmental Protection Agency (EPA) will use in determining which eligible border area projects will have the highest priority for EPA grants. One specific criterion (the affordability criterion) states that priority will be given to projects with maximum funding from other sources and where program funding is necessary to complete financing of the project. We have received several requests that we further refine this specific criterion to provide a clear statement of which projects have highest priority based on the ability of the project sponsor to obtain financing from other sources and the effect of grant funding on the affordability of the project to the ultimate users. This memorandum clarifies and further elaborates the affordability criterion for grant funding.

The basic concept is that grant funds be applied toward projects where the value of the grant funds has the greatest marginal benefit. In general, the marginal benefit is increased when the grant funds are used in tandem with other financial resources and when the assistance is targeted toward project costs that are above what could normally be financed by the project sponsor's sources of credit. Furthermore, grant funding is very important when the costs to the ultimate users (rate payers) from the use of credit mechanisms result in rate increases that are not sustainable or realistic.

THE POLICY

Funding priority will be given to eligible water and wastewater projects where grant funding is essential to make facilities affordable to their ultimate users. This broad statement of policy applies to projects on either side of the border.

The implementation of this policy should be tailored to accommodate the differences in the U.S. and Mexico regarding governmental organizations, institutional relationships and responsibilities, financial instruments and information required to support project financing.

THE PROCESS

For projects on either side of the border the process involves the following:

1. Before obtaining a formal financial commitment from EPA for construction funding, the project sponsor (generally with the support of North American Development Bank (NADBank) and in conjunction with the project development efforts of the Border Environment Cooperation Commission (BECC)) must conduct a financial analysis of the existing water and wastewater system and the proposed improvements to determine the capital, operating and maintenance costs of the existing system and the changes in local costs associated with the proposed project.

2. When construction funding is formally requested under the EPA-NADBank Cooperative Agreement, the EPA's regional offices must review the NADBank's submission and accompanying analysis addressing the affordability of a project. The NADBank submission should provide detail on the financial feasibility of the project and the estimated user burden associated with the project proposal. The submission should provide information adequate to determine capital and operating costs, sources of funding and financial feasibility of the project. In the context of the cooperative agreement, two financial mechanisms are available; a buy down of project costs or transition assistance that makes loan repayments affordable to the ultimate users.

THE GUIDANCE

In Mexico, Comisión Nacional Del Agua (CNA) applies its formula for determining which projects are deemed affordable. The results of this financial analysis, on the Mexican side, will be reflected in the BECC's certification documents and in the NADBank's financing proposals. On the U.S. side of the border, the guidance and benchmark measures described in this memorandum establish a framework for conducting an affordability assessment.

An affordability assessment should identify current operations and maintenance and debt retirement costs and estimate the changes in operations and maintenance and financing costs that relate to the proposed project. The financial analysis should consider alternatives for the project sponsor to proceed with construction of the project based on a combination of financing and grant funding of the proposed costs. The benchmark measures contained in this memorandum establish guidelines on identifying projects that appear to be affordable without EPA grant funding. For the most part, projects that are affordable should be financed with maximum reliance on loan and credit mechanisms.

A consistent approach to establishing costs is an essential element in conducting a financial assessment of the proposed project. The following general steps are applicable to establishing a cost basis for both water and wastewater projects:

1. Determine the project sponsor's total project costs by establishing the current costs for existing water or wastewater services and estimate the changes in annualized cost for any proposed project.
 - a. The current costs are defined as current annual operating and maintenance expenses (excluding depreciation) plus current annual debt service (principal and interest). This represents the cash expenses for current operations.
 - b. The estimated project costs for the proposed project should include projected changes in operation and maintenance and debt service expenses. These costs are adjusted to current dollars (i.e. deflated).
2. After estimating changes in the annualized costs that result from the proposed project, then calculate the residential share of the total costs. The residential or household costs should exclude the portion of expenses attributable to commercial, governmental and industrial users.
3. Determine the project's financial impact on users in the context of the benchmark measures established in this memorandum.

**BENCHMARK MEASURES FOR ASSESSING THE IMPACT OF
U.S. WATER AND WASTEWATER PROJECT COSTS ON USERS**

The following benchmark measures will help evaluate user burden and the amount and type of funding assistance required.

1. Consider the project sponsor's cost per household (CPH) as a percentage of the local median household income (MHI). If the current and estimated project costs of the water and wastewater services result in a CPH of less than 1.7 percent of MHI, the project has a low impact and should be considered affordable. Project sponsors should be expected to fully finance costs that are within the affordable range. For costs that are above the benchmark level, the appropriate amount of grant funding and type of assistance will vary on a project-by-project basis considering secondary factors such as the current debt burden of the project sponsor, other sources of funding available, the ability of the project sponsor to assume debt to finance the project, and key socioeconomic indicators such as high unemployment in the service area.
2. Focus on the rate increases that result from the credit financing of the proposed project. If the debt retirement related increases exceed 5 percent per annum, it may be difficult to sustain the rate increases and some form of transition assistance from this program should be a priority — working in conjunction with available sources of credit. If the debt retirement increases exceed 10 percent per annum, the additional user burden has a high impact that may not be adequately addressed under a five-to seven-year transition fund arrangement, and grant financing may be necessary to buy down the costs of the proposed project. Again, as in the example of the above benchmark measures, the project sponsors should be expected to finance costs below the benchmark measures.

Projects that are determined to exceed the above benchmark measures and thus receive EPA funding are expected to proceed to construction as soon as appropriate approvals can be rendered. Projects that can benefit from regionalization of facilities or services should not be adversely affected in terms of the priority, amount, or type of grant funding as a result of selecting a regional alternative.

IMPLEMENTATION

This affordability policy will be implemented through EPA's Cooperative Agreement with the NAD Bank. Under the cooperative agreement the NADBank will be charged with preparing project affordability and financial feasibility assessments.

If you have questions, contact me or Fred Lindsey at (202)260-5853.